

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

1. (currently amended) A process for the production of a frozen vegetable or part thereof, wherein said process comprises the steps of:
 - (i) subjecting a vegetable or part thereof to a firming treatment selected from:
 - a) immersing the vegetable or part thereof in a solution of a calcium salt,
 - b) heating the vegetable or part thereof to a temperature in the range about 50 to about 70°C, and
 - c) a combination of a) and b);
 - (ii) under-cooling said vegetable or part thereof to a core temperature within the range of less than or equal to -5°C to -15°C; with the proviso that maximum and minimum temperatures between the surface and the core of the vegetable or part thereof is within 6°C of each other;
 - (iii) reducing the temperature to less than or equal to -18°C.
2. (previously presented) A process according to claim 1 wherein the firming step comprises immersing the vegetable or part thereof in a solution of a calcium salt and said calcium salt is a member selected from the group consisting of calcium chloride, calcium sulphate, calcium citrate, calcium monophosphate and mixtures thereof.

3. (original) A process according to claim 2 wherein said solution of calcium salt comprises from 0.1 to 10% calcium.
4. (original) A process according to claim 3 wherein said solution of calcium salt comprises about 1% calcium.
5. (original) A process according to claim 3 wherein said vegetable or part thereof is immersed in the solution of calcium salt for a period of from 2 to 30 minutes.
6. (previously presented) A process according to claim 1 wherein the firming treatment comprises heating said vegetable or part thereof to a temperature in the range of from about 50 to about 70°C and said treatment is for a period of from about 2 to about 30 minutes.
7. (original) A process according to claim 6 wherein said temperature is about 65°C.
8. (original) A process according to claim 1 wherein said firming treatment comprises immersing the vegetable or part thereof in a solution of calcium salt at ambient temperature and immersing the vegetable or part thereof in an aqueous solution at a temperature of from about 50 to about 70°C (with or without calcium salt being present) in either order.
9. (previously presented) A process according to claim 8 wherein said firming treatment comprises the steps of:
 - immersing the vegetable or part thereof in a solution of calcium salt at ambient temperature for a period of from about 2 to about 30 minutes; and thereafter
 - immersing the vegetable or part thereof in a solution of calcium salt at a temperature of from about 50 to 70°C for a period of from 2 to 30 minutes.

10. (original) A process according to claim 1 wherein at least 40% of ice formation within the core of said vegetable or part thereof in step (iii) occurs within a plurality of cellular structures, wherein the perimeter of each cellular structure is defined by a cell wall.

11. (original) A process according to claim 1 wherein said vegetable or part thereof is a member selected from the group consisting of potato, swede, turnip, pumpkin, onion, broccoli, tomato, zucchini, aubergine, water chestnut, pepper, mushroom, peas, sugar-snap peas, spinach, green beans, carrot and mange tout.

12. (original) A process according to claim 11 wherein said vegetable or part thereof is tomato.

13. (original) A process according to claim 11 wherein said vegetable or part thereof is potato or carrot.

14. (currently amended) A frozen vegetable obtained by a process which comprises the steps of:

- (i) subjecting a vegetable or part thereof to a firming treatment selected from:
 - a) immersing the vegetable or part thereof in a solution of a calcium salt,
 - b) heating the vegetable or part thereof to a temperature in the range about 50 to about 70°C, and
 - c) a combination of a) and b);

- (ii) under-cooling said vegetable or part thereof to a core temperature within the range of less than or equal to -5°C to -15°C; with the proviso that maximum and minimum temperatures between the surface and the core of the said vegetable or part thereof is within 6°C of each other;

(iii) reducing the temperature to less than or equal to -18°C .

15. (original) A frozen meal comprising a vegetable or part thereof as defined in claim 14.

16. (original) Use of a vegetables as claimed in claim 14 in a frozen meal.

17. (previously presented) The process according to claim 9 further comprising immersing the vegetable or part thereof in a solution of calcium salt for a period of from 2 to about 30 minutes.